



Accidents in the Food-Manufacturing Small and Medium Sized Malaysian Industries

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Abstract

This research tried to find out the types and causes of accidents that happen in food-manufacturing factories in small and medium-sized industries (SMIs) in Kedah and the actions taken by the employers following the occurrence of the accidents. Results showed that majority of the respondents had encountered slight injuries. The majority of the accidents were caused by human factors, and employers seldom took serious actions against those involved in workplace accidents. Small cut was identified as the commonest type of accident that occurred in the SMIs for the past two years. Findings also indicated that many of the employers were less interested in giving out incentives when their employees complied with all the safety rules and regulations while punishments were less serious for those who do not complied with safety rules and regulations.

Keywords: Accidents, Food-manufacturing industry, SMIs

1. Introduction

In Malaysia, SMIs are one of the major recruiters and contributors to the national economy. However, in the aspects of OSH implementation and performance, these SMIs have yet to achieve the necessary standard. As a comparison, multi-national companies and big companies in Malaysia probably adhere well to the philosophy of self-regulation for people at work to enhance the OSH standard. Thus, the respective Malaysian government agencies such as the Ministry of Human Resource and DOSH keep reminding the SMIs employers and self-employed persons that they need further improvement in OSH practices and performance. Reasons that led to their poor levels of OSH performance could be due to factors such as lack of expertise, resources or manpower. According to the Department of Occupational Safety and Health (DOSHA) of Malaysia, the level of SMIs employers' compliance with the Occupational Safety and Health Act and Regulations (OSHA) 1994 and its regulations is still not up to the standard and needs further improvement. Statistics also indicated that 80-90 percent of the accidents reported to SOCSO involved small and medium size industries (SMIs).

In relation to that, evidence has proven that the size of the organization or the number of people employed in an organization has a close relation with injury rate. Nichols, Dennis and Guy (1995) have conducted a research on the relationship between the size of employment unit and the injury rate in British manufacturing using a secondary analysis of the Workplace Industrial Relations Survey (WIRS) 1990 data. Their study found that there is a negative relationship between small establishments and the injury rate (small establishments, higher injury rate). They stated that one of the possible reasons is that small establishments tend to have little resources. Holmes's (1999) study on a sample of Australian small business construction firms show that in the aspect of managing OSH risk, small business firms are not as effective as larger firms. Lingard and Rowlinson's (1994) research also suggested that organizations which possess more resources and experience tend to deal with health and safety issues more effectively. On top of that, research also suggested that worker attitudes could lead to workplace accident. Research by Zakaria et al., (2002) found that worker negligence contributed to 90.9 and 78.6 percent of the cases reported by the manufacturing and construction companies respectively; while other potential causes of accidents are conditions of the workplace, the nature of work and machinery.

However, till to date, many researches were focused on other areas such as construction industries but little research has been carried out on the food manufacturing industries, particularly in the state of Kedah. Therefore, this study tried to find out the types and causes of accidents that happen in food-manufacturing factories and the actions taken by the employers following the occurrence of an accident. A better understanding of this meaningful information could help the employers to take the necessary actions to overcome the problem and restructure the safety and health work culture in their workplaces.

2. Methodology

This study used the data set collected from a survey on "The Standard Implementation of OSHA in SMIs, Kedah". The collection of data was carried out in the month of mid July – mid September, 2004. Originally, there were 256 respondents from 51 food-manufacturing factories located in Kedah. The list of Kedah food manufacturing industry was taken from Federal Agricultural Marketing Authority (FAMA), Kedah branch. Out of these 256 respondents, 214 of them came from the lower level management group. As compared to the others, they faced higher risks of accidents, as their daily responsibilities mainly deal with production. For the purpose of this paper, only 214 employees from the lower level management group were taken as the sample of the study. Employers' consents were acquired before the distribution of questionnaires. Distribution of questionnaires and collection of data were undertaken during their working hours. On the average, it took about 25 minutes for the respondents to complete the questionnaires.

There were seven questions to study the workplace accidents occurrences and the actions taken by the company following the accident occurrences. The questionnaire was adopted and adapted from Zakaria, et al., (2002). The questionnaire was in dual-languages, that was, Bahasa Malaysia and English.

3. Results and discussion

The result findings were summarized in below (Tables 1-7).

3.1 Research question 1: Have you experienced any accidents in the workplace?

Table 1 showed that when asked whether they have experienced any accidents in the workplace, out of 214 respondents, 68.4% (n=147) of them answered "No" and 31.2% (n=67) answered "Yes".

The finding indicated that although majority of the respondents did not experience any accident in the workplace, employers need to practice OSH seriously in the workplace to minimize accident rates as it was reported that 31.2% of them did experience accidents in the workplace.

3.2 Research question 2: What is the level of injury that you have suffered?

Respondents are required to answer this question if they answered "Yes" in the previous question. The result suggested that a majority of them or 97% (n=65) suffered slight injuries when they met with an accident in the workplace. Only 3.0% (n=2) have been very lucky, as they were not injured (Table 2).

3.3 Research question 3: What is the cause of accident?

The respondents are requested to indicate the cause of accident. The result showed that out of 67 respondents that have experienced accidents in the workplace, 46.2% (n=31) of them indicated that the accidents were caused by their friend's negligence, as compared to other factors such as machine/equipment used 16.4% (n=11), nature of the work 13.4% (n=9) and their own negligence 9% (n=6). Unsafe environment (n=5) and other factors (n=5) made up less percentage as the cause of accidents in the respondents' workplace (Table 3). This finding indicated that human factor was the major cause of workplace accidents; as such accidents were mainly caused by co-workers. In this aspect, employees could also play an important role in enhancing the awareness of their counterparts in OSH practices at the workplace in order to avoid workplace accidents.

3.4 Research question 4: Were there any actions taken against you because of this accident?

The result showed that out of 67 respondents, a big proportion of them, i.e., 71.6% (n=48) indicated that due to the accident, they received a warning from the organization. A minority of them received compensation from various sources, such as SOCSO 11.9% (n=8), company insurance 6% (n=4), and compensation from the employer 4.5% (n=3). However, a small portion of them were reprimanded with actions taken against them, for instance, 1.5% (n=1) were transferred to another department/section, and others count for 4.5% (n=3). None of them have been demoted or had their salary deducted (Table 4). This finding indicated that employers seldom seriously punished those who met with an accident at the workplace, as serious action such as salary deduction is given less priority and none of them have been demoted.

3.5 Research question 5: Types of accidents that occurred in your company for the past two years

Table 5 showed the types of accidents that occurred in the respondents' company for the past two years. The finding indicated that accidents in the form of a small cut happen most frequently, as it ranked the highest (n=150) among the types of accidents in the workplace for the past two years. Finger stuck-in (n=42) ranked second followed by others (n=40), hit by fallen objects (n=36), broken arms (n=20), loss of finger nails (n=10) and scalded with boiling water (n=9), loss of finger/s (n=4), permanent disablement (n=3) and physical injury caused by hazardous chemicals (n=3) were some of those accidents that frequently occurred in the respondents' company for the past two years. No cases of deaths due to injury occurred (n=0). This finding suggested that a majority of the accidents that occurred in the respondents' workplace were not harmful or do not cause death. Serious cases that bring to permanent disablement or physical injury seldom occurred, and there are no death cases in the respondents' workplace.

3.6 Research question 6: Types of Incentives Received When Complying with All Safety Rules and Regulations

As to the question concerning types of incentives received when complying with all safety rules and regulations, respondents were required to tick the relevant answers. Results showed that among the choices, no incentives top led the list (n=113), followed by salary increment (n=50), others (n=43), an extra day of leave (n=20). None of the respondents indicated that they have received recognition certificate or were given the incentive to go overseas/locally for training courses when complying with all safety rules and regulations (Table 6). This finding suggested that many of the respondents' employers were less interested in giving out incentives to their employees even when the employees have complied with all safety rules and regulations. This could cause the employees to be demotivated when complying with the safety rules and regulations.

3.7 Research question 7: Kinds of Punishments an Employee Would Receive if He/She Does Not Comply with Safety Rules and Regulations

Table 7 showed the results on the kinds of punishments that an employee would receive if he/she does not comply with safety rules. The findings suggested that the most frequent punishment that employees would receive would be a warning (n=141). However, 64 of them indicated no penalty, followed by fired (n=35), demotion and transfer to another department/section (n=2), salary deduction (n=1), and others (n=1). This finding indicated that employers were not serious in punishing the employees for not complying with safety rules, as it was indicated that a warning was the most common method of punishment for not complying with the safety rules and regulations, and some of them even indicated that no penalty was given.

4. Conclusion

Generally, based on the research findings, only some of the respondents experienced accidents at their workplace, but a majority of them had encountered slight injuries. Findings indicated that a majority of the accidents were caused by human factors, and employers seldom took serious actions against those involved in workplace accidents, as a warning was the most frequently mentioned action taken by employers. Besides that, a small cut was identified as the commonest type of accident that occurred in the SMIs for the past two years. However, the culture of occupational safety and health practices need to be cultivated and enhanced seriously in these organizations, as findings have indicated that many of the employers were less interested in giving out incentives when their employees complied with all the safety rules and regulations. In terms of the kinds of punishment that an employee would receive if he/she does not comply with the safety rules and regulations, the most frequently mentioned punishment was a warning.

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Table 1. Have you experienced any accidents in the workplace?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	67	31.2	31.3	31.3
	No	147	68.4	68.7	100.0
	Total	214	99.5	100.0	

Table 2. What is the level of injury that you have suffered?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Injured	2	3.0	3.0	3.0
	Slightly Injured	65	97.0	97.0	100.0
	Total	67	100.0	100.0	

Table 3. What is the cause of accident?

No.	Cause of Accident	Frequency	Percent
1.	My friend negligence	31	46.2
2.	Machine/equipment used	11	16.4
3.	Nature of the work	9	13.4
4.	My own negligence	6	9.0
5.	Unsafe environment	5	7.5
6.	Others	5	7.5
	Total	67	100.0

Table 4. Were there any actions taken against you because of this accident?

No.	Action Taken	Frequency	Percent
1.	Warning	48	71.6
2.	Compensation from SOCSO	8	11.9
3.	Compensation from company insurance	4	6.0
4.	Compensation from the employer	3	4.5
5.	Others	3	4.5
6.	Transferred to another department/section	1	1.5
7.	Salary deduction	0	0.0
8.	Demotion	0	0.0
	Total	67	100.0

Table 5. Types of accidents that occurred in your company for the past two years

No.	Types of Accidents	Ranking of Cases
1.	Small cut	150
2.	Finger stuck-in	42
3.	Others	40
4.	Hit by falling objects	36
5.	Broken arms	20
6.	Loss of finger nails	10
7.	Scald from boiling water	9
8.	Loss of finger/s	4
9.	Permanent disablement	3
10.	Physical injury caused by hazardous chemicals	3
11.	Deaths due to injury	0

Table 6. Types of Incentives Received When Complying with All Safety Rules and Regulations

No.	Incentives	Frequency
1.	No incentives	113
2.	Salary increment	50
3.	Others	43
4.	An extra day of leave	20
5.	Recognition certificate	0
6.	Sent overseas/locally for training courses	0

Table 7. Kinds of Punishments an Employee Would Receive if He/She Does Not Comply with Safety Rules and Regulations

No.	Punishment	Frequency
1.	Warning	141
2.	No penalty	64
3.	Fired	35
4.	Demotion	2
5.	Department/section transfer	2
6.	Salary deduction	1
7.	Others	1